

<h1>Jupiter ULV Service Guide</h1>	Document	JPT-S01
	Version	1.0

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**1. Introduction**

1-1 This manual provides reference information for servicing Jupiter ULV series. The manual is designed as a self-paced guide that will train you to install, configure, and repair these POS units.

1-2 Attention

1-2-1 For protection from electrical shock, It is recommended to use a wrist band or anti-electricity glove when disassembly.

1-2-2 For safety concerns, safety working glove is recommended to be used all the time.

1-2-3 Ensure that AC power cord is unplugged from the wall outlet.

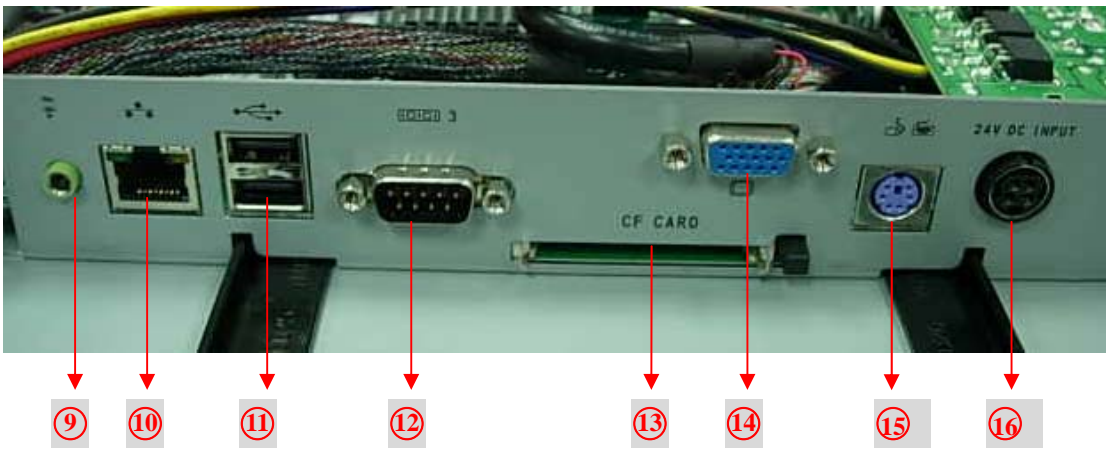
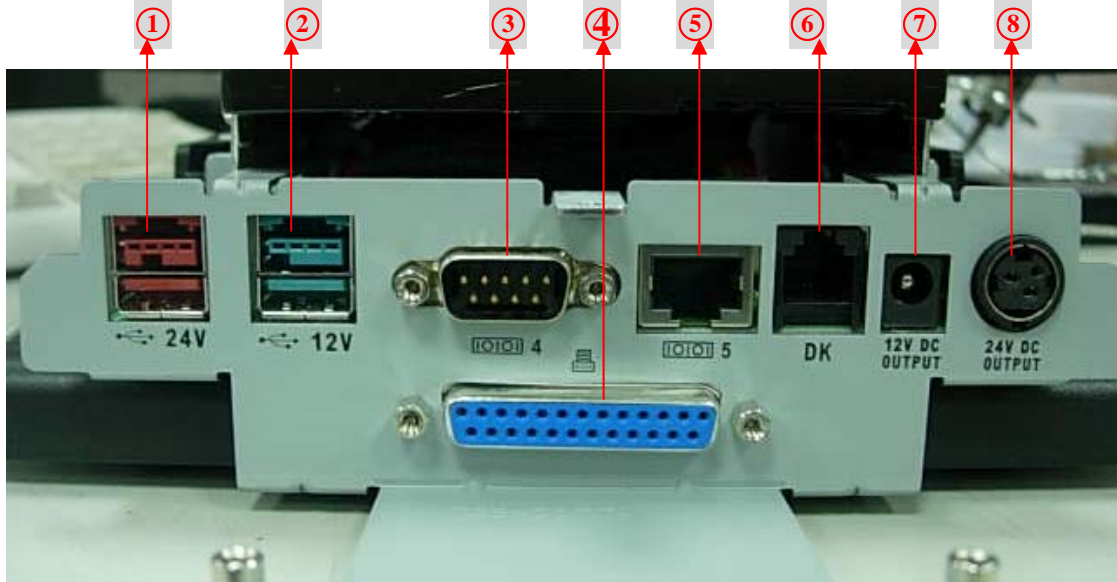
1-2-4 When analysis diagnostic in progress, it is recommended all running program is off.

1-2-5 Keep away from all screws, and metal plat to avoid electrical shock.

1-2-6 This Limited Warranty does not extend to any Product if repair or alteration, or attempted repair or alteration, of this unit by anyone other than DataVan/Qualified trainer.

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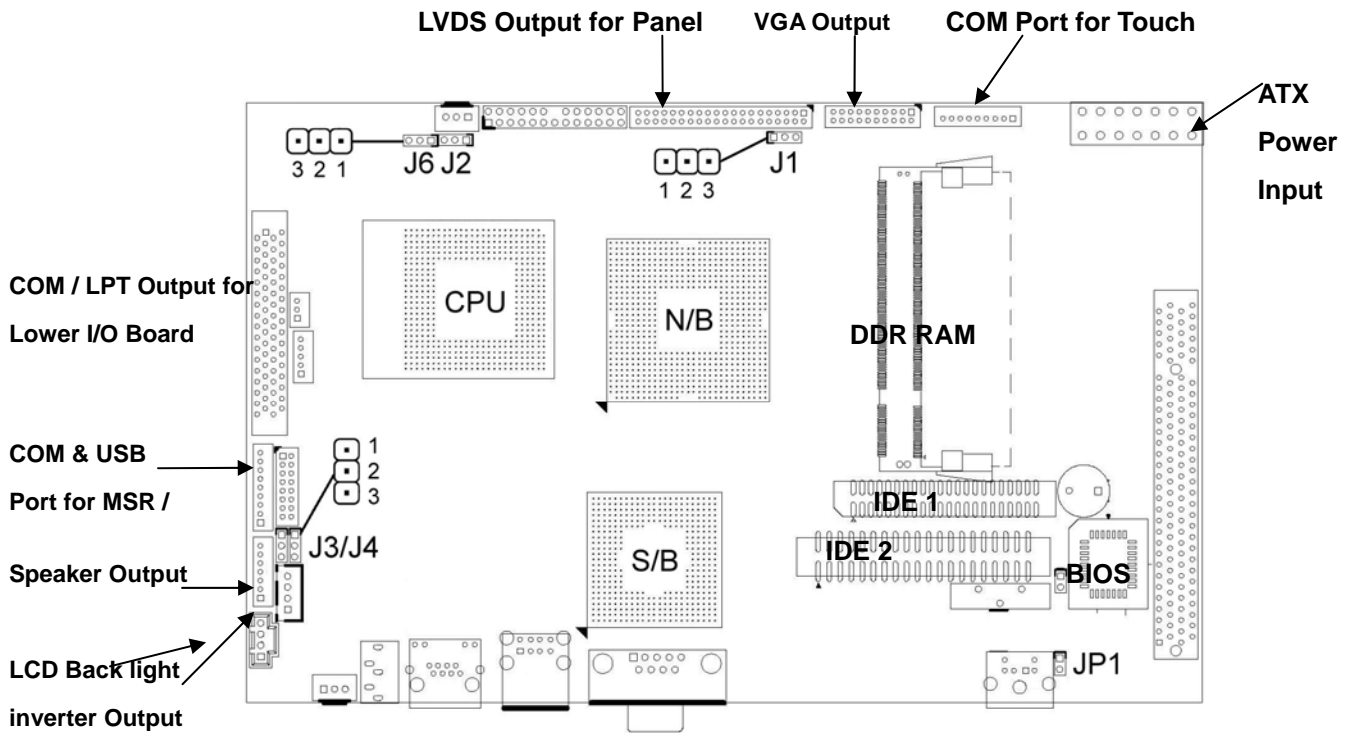
### 3. I/O Back Panel



1	24V USB	9	AUDIO OUT
2	12V USB	10	LAN
3	COM4 PORT (NO VOLTAGE)	11	Dual USB PORT
4	PRINT PORT	12	COM3 PORT(NO VOLTAGE)
5	CUSTOMER DISPLAY	13	CF CARD SLOT
6	CASH DRAWER	14	VGA
7	12V DC OUT	15	KB PS2 PORT
8	24V DC OUT	16	24V DC ADAPTER INPUT

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※ Main Board (Intel 852GM) Jumper Setting & Block Diagram



**Intel 852GM M/B Parts Number: KESMB-1503B**

**J3 COM1 (D-sub Pin9) DC Output Select**

Pin 1-2 closed	COM Port DC Output Disable
Pin 2-3 closed	+5V or +12V DC Output Enable

**J4 COM1 (D-sub Pin9) Voltage Select**

Pin 1-2 closed	+5V
Pin 2-3 closed	+12V

**J6 COM3 (D-sub Pin9) DC Output Select**

Pin 1-2 closed	COM Port DC Output Disable
Pin 2-3 closed	+5V or +12V DC Output Enable

**J2 COM3 (D-sub Pin9) Voltage Select**

Pin 1-2 closed	+5V
Pin 2-3 closed	+12V

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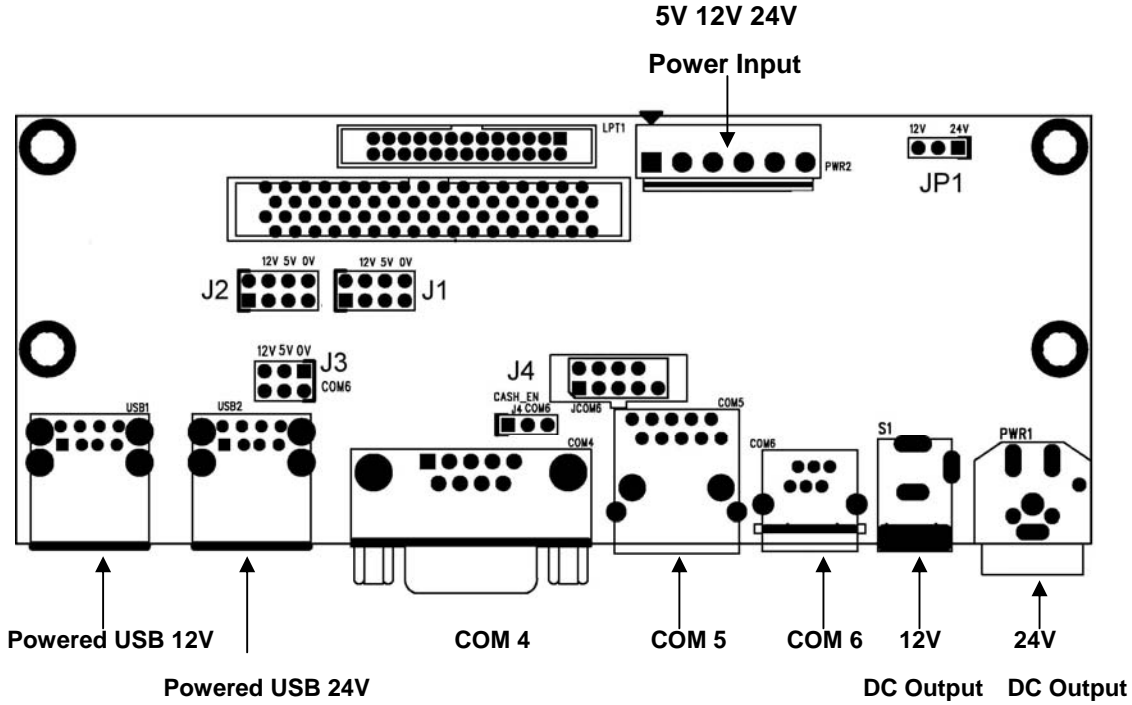
**J1 LVDS Voltage Select**

Pin 1-2 closed	+3.3V
Pin 2-3 closed	+5V

**JP1 CLEAR CMOS**

Pin 1-2 closed	Clear CMOS
Pin 1-2 opened	Normal

※**Extension I/O Board Power Input**



**JP1 Cash Drawer 12V/24V Voltage Select**

Pin 1-2 closed	+24V (default)
Pin 2-3 closed	+12V

**J2 COM4 (D-sub Pin9) Voltage Select**

Pin 1-2 closed	No Function
Pin 3-4 closed	+12V
Pin 5-6 closed	+5V
Pin 7-8 closed	COM Port DC Output Disable (default)

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**J1 COM5 (RJ-45) Voltage Select**

Pin 1-2 closed	No Function (default)
Pin 3-4 closed	+12V for Customer Display
Pin 5-6 closed	+5V
Pin 7-8 closed	COM Port DC Output Disable (default)

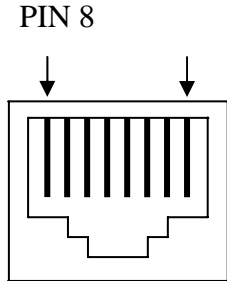
**J3 COM6 (RS-232) Voltage Select**

Pin 1-2 closed	COM Port DC Output Disable (default)
Pin 3-4 closed	+5V
Pin 5-6 closed	+12V

**J4 COM6 RS-232/RJ-11 (Cash Drawer) Select**

Pin 1-2 closed	RJ-11 for Cash Drawer (default)
Pin 2-3 closed	RS-232

**※RJ-45 8P8C Connector for COM 5 ( Front Side View )**



**COM5 ASSIGNMENT**

8	7	6	5	4	3	2	1
V(RI)	V(RI)	GND	GND	DTR	DSR	TX	RX



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## ※Current Fan-Out Limitations for each I/O Port








Connector with Voltage Output	Location	Average current	Peak current
COM 1 for extension interface (9 <sup>th</sup> PIN of DB-9)	LCD Panel Side	DC 5V / 0.5A, DC 12V / 0.5A	DC 5V / 1A, DC 12V / 0.5A
COM 2 for Touch Panel interface	LCD Panel Side	DC 5V / 0.3A	DC 5V / 0.5A
COM 3 for extension interface (9 <sup>th</sup> PIN of DB-9)	LCD Panel Side	DC 5V / 0.3A, DC 12V / 0.5A	DC 5V / 0.5A, DC 12V / 1A
COM 4 for extension interface (9 <sup>th</sup> PIN of DB-9)	Bottom side (On Interface Board)	DC 5V / 0.3A, DC 12V / 0.5A	DC 5V / 0.5A, DC 12V / 1A
COM 5 for Pole Display (RJ-45)	Bottom side (On Interface Board)	DC 5V / 1A DC 12V / 1A	DC 5V / 1A, DC 12V / 1A
COM 6 for Cash Drawer driving (Pulse)	Internal connector	DC 12V / 1A DC 24V / 1A	DC 12V / 1A, DC 24V / 1A
DC 12V Powered USB for peripherals	Bottom side (On Interface Board)	DC 12V / 1.5A	DC 12V / 2.5A
DC 24V Powered USB for peripherals	Bottom side (On Interface Board)	DC 24V / 1.5A	DC 24V / 2A
*2 <sup>nd</sup> LCD Monitor Power Connector (DC Plug)	Bottom side (On Interface Board)	DC 12V / 1.5A	DC 12V / 2.5A
*DC 24V Printer Power Connector (Hosiden 3PIN)	Bottom side (On Interface Board)	DC 24V / 1.5A	DC 24V / 2A

**Note:**

- None of the COM Port current loading should exceed DC 5V/3A+ DC 12V/2A.
- DC 12V / 24V powered USB should not be used with 12V DC plug and 24V Hosiden at the same time.
- When 2nd display uses 12V DC plug, the thermal printer can **NOT** use the 24V Hosiden Output simultaneously.

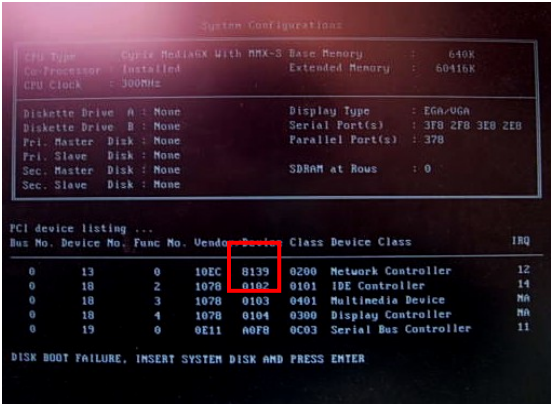
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3. Trouble Shoot

Item	Issue	Issue Hints	Remark
1	System does not boot, and POWER LED OFF	<ol style="list-style-type: none"> <li>1. Verify that the power adaptor is connected to the unit. (see [I/O Diagram16])</li> <li>2. If power LED is off, then replace DC to DC board.</li> <li>3. If no works: Replace Motherboard.</li> <li>4. If above steps do not work, then return unit back to DataVan.</li> </ol>	 DC to DC Board YPSEA-0002E  Power Adaptor YPSFB-00010
2	No boot screen	<ol style="list-style-type: none"> <li>1. Replace parts in order, LVDS cable, inverter, inverter cable, Motherboard.</li> <li>2. If error remains occur, please return unit back to DataVan.</li> </ol>	 LVDS cable YCBVC-0071A  Inverter cable YCBWP-0005B  Inverter YCAIN-0004A
3	Second Display does not work.	<ol style="list-style-type: none"> <li>1. Verify if VH power is connected.</li> <li>2. Verify if I/O board has jump set to voltage out. (Refer to user guide).</li> <li>3. If no responses from above step then replace I/O daughter board.</li> </ol>	 VH power cable YCBWP-0003B  I/O Board KESIO-1201D







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4	LAN does not response.	<ol style="list-style-type: none"> <li>1. Verify the RJ45 cable is connected to the LAN jack.</li> <li>2. Verify the onboard LAN is enabled from BIOS.</li> <li>3. Verify if Vendor Device ID <b>【8139】</b> appears on boot screen.</li> </ol>  <ol style="list-style-type: none"> <li>4. If above steps do not work, then return unit back to DataVan for EC firmware update.</li> </ol>	Refer to I/O diagram.
5	Cash drawer not working.	<ol style="list-style-type: none"> <li>1. Verify if CASH DRAWER CABLE deployed or broke, else replace FRONTER BACK IO</li> <li>2. If no works: Replace Motherboard.</li> <li>3. Return unit back to DataVan.</li> </ol>	
6	No voltage output from 12V&24V Plug.	<ol style="list-style-type: none"> <li>1. Verify if VH power is connected.</li> <li>2. If no responses from above step then replace I/O daughter board.</li> </ol>	




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7	TOUCH is not functioning.	<ol style="list-style-type: none"> <li>For ELO touch, verify if red light from control board is blinking, then replace following in order, Touch cable, A/D board and control board.</li> <li>For Fuji touch, replace Touch cable, A/D board, and control board in order.</li> <li>If above steps do not work, then return unit back to DataVan.</li> </ol>	 ELO Touch cable YCBW1-01150   ELO control BD KESB-0001B   Fuji control BD YCAXX-0011B   Fuji Touch cable YCBW1-0136A
8	CF CARD failure	<ol style="list-style-type: none"> <li>Verify CF card cable is connected or deployed.</li> <li>Verify if PIN breaks from Front I/O board.</li> <li>CF Slot validated only on INNODISK and PQI.</li> <li>If no works: Replace CF CARD slot.</li> <li>If no works: Replace Motherboard.</li> </ol>	 CF card slot KESCF-1201A
9	Second Display does not work.	<ol style="list-style-type: none"> <li>Replace <b>VGA cable</b> .</li> <li>If replacing VGA cable remains failure then replace M/B.</li> </ol>	 VGA cable YCBVC-00060

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Item	Issue	Issue Hints	Remark
10	No response from KB.	Note the I/O diagram, that item 15 of KB PS2 connector, If requires mouse connection then 2 in 1 KB/MS cable adaptor must be used.	 1 TO 2 KB/MS cable.
11	System Failure	<b>VIA CN700 M/B Parts Number: KESMB-1202D</b>  <b>Intel 852GM M/B Parts Number: KESMB-1503B</b>	 <b>VIA CN700 M/B</b>   <b>Intel 852 M/B</b>